



LANDFILL TECHNOLOGIES OF ARECIBO, LLC

Surface Methane Gas Monitoring at the Arecibo Municipal Solid Waste Landfill

Quarterly Event Report

**Prepared by:
Landfill Technologies of Arecibo, LLC.**

July to September 2019

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Introduction

Landfill Technologies of Arecibo, LLC (LTA) has conducted on July, August and September of 2019 the surface and perimeter methane gas monitoring event at the Arecibo Municipal Solid Waste Landfill as part of the operation of the Gas Collection and Control System (GCCS). This event is also performed as part of the state and federal agency's for environment requirements for solid waste landfills.

The surface methane gas monitoring was performed by Landfill Technologies of Arecibo, LLC (LTA) personnel during September 17th, 2019 according to the following rule of the "Enmiendas al Reglamento para el Control de la Contaminación Atmosférica de la Junta de Calidad Ambiental para cumplir con los requisitos para Planes Estatales de la Sección 111 (d) de la Ley Federal de Aire Limpio para Implantar las Guías de Emisiones para Sistemas de Relleno Sanitario". This monitoring consisted of obtaining readings with a portable instrument (TVA1000B) surface detector, please refer to Appendix A for specifications of instrument) from landfill surface, groundwater monitoring wells, gas collection system and ambient monitoring.

Objectives

The objective of this event (the surface methane gas monitoring) is to ensure that the concentration of methane (CH₄) generated by the landfill does not exceed the lower explosive limit (LEL) of methane at the facility. The LEL for this monitoring is 500 ppm (parts per million) or 25%. If the personnel of LTA detect any release that exceeds the LEL it will require notification to the owner or operator and an expansion of the monitoring program to determine the vertical and horizontal extent of the release.

Description

The surface methane operational standards consist of monitoring the surface emissions of methane along the entire perimeter of the collection area and along a serpentine patten 30 meter apart (or site specific established spacing) for each collection area using a portable surface detector (TVA1000B – Appendix A).

Sampling Locations and Results

Landfill Technologies of Arecibo, LLC has created samplings locations at the Arecibo Municipal Solid Waste Landfill site where the surface emission readings have been collected. LTA presents the sampling locations at Appendix B. These readings were collected with the portable surface detector (TVA1000B) and are presented in Appendix C.

Conclusions and Recommendations

The surface emissions readings were performed for July, August and September of 2019 monitoring event from the Arecibo Municipal Solid Waste Landfill. This monitoring is part of conclusions quarterly monitoring program aimed to detect abnormal gas release at the landfill. During this event of monitoring the active area (area where the waste was deposited) was located at South-East side of the landfill. The LTA personnel inspect the area and there were no cracks that present a hazard to the surface.

The results of the surface emission monitoring for July, August and September of 2019 events by LTA personnel indicates that during that period no sampling point monitored exceed the LEL for methane which means that the landfill location does not represent a high risk of explosiveness.



Land-Tech

LANDFILL TECHNOLOGIES OF ARECIBO, LLC

APPENDIX A

Thermo Scientific Portable Toxic Analyzer – TVA1000B
Surface Emission Monitor Specifications

**Thermo Scientific
TVA1000B
Toxic Vapor Analyzer**



The Only Portable Intrinsically Safe Dual PID/FID Analyzer



Portable Toxic Vapor Analyzer

The Thermo Scientific TVA1000B is the only over-the-shoulder portable vapor analyzer that offers both PID (Photo Ionization Detection) and FID (Flame Ionization Detection) in a single, easy-to-use instrument. The ability to utilize both technologies in this field proven instrument provides benefits in reduced weight and a single user interface. The user can easily monitor and log inorganic and organic vapors simultaneously.

FID Detection

Users can measure a wide variety of organic vapors over an impressive dynamic range (0-50,000 ppm), monitoring some compounds that the PID will not detect. The flame ionization detector operates by breaking hydrocarbon bonds and is not limited by a low ionization potential of the molecule.

Simultaneous FID/PID Detection

No other instrument offers both Photo Ionization and Flame Ionization Detection operating simultaneously in a single portable vapor analyzer. Dual detection eliminates the time, expense and trouble of purchasing and maintaining two separate analyzers.

With PID detection, the user has not only the ability to monitor for organic compounds, but also can detect many inorganic compounds. Some compounds detected by PID and not FID are ammonia, carbon disulfide, carbon tetrachloride, formaldehyde, and hydrogen sulfide. The PID also has the advantage of not requiring fuel or air to operate. In anaerobic environments, the TVA1000B PID can be used.

Key Features

- Simultaneous FID/PID or Single FID detector(s)
- Portable and lightweight
- Multiple response factors and curves
- Multi-point calibration
- On-board datalogging
- 8 hour battery life

Probe Options

Standard Probe

Display measurement values on a 4-character LCD, with measurement units displayed on %, ppm, or ppb. Additionally, a bar graph indicator provides an indication of concentration level. Function keys allow selection of analyzer functions.

Enhanced Probe

Originally designed for Fugitive Emissions monitoring, the enhanced probe has a larger display area than the basic probe. This provides a display of up to 6 lines x 20 characters, plus a double height concentration value. It displays all the same information as the standard probe and has menu-driven access to many of the analyzer functions, allowing them to be easily initiated and/or changed at the probe.



TVA1000B Data Manager Accessory: Route Management Probe

Powerful field capabilities

The TVA1000B Data Manager allows users to modify or create route data in the field, eliminating the need for manual recording of data. This helps you comply with the electronic data storage requirements within most consent decrees. The probe has a highly visible 360 degree LED with a pulsed rate linked to concentration.

The DataManager provides access to all of the features previously available only through the sidepack. Users can also easily search and navigate between tags in a route by simply entering the desired tag identifier.

Flexibility and control

The DataManager allows control of how data is viewed and accessed in the field. This allows the user to customize the view to best meet the monitoring needs at your facility, as each route may have different fields and screen displays. Fields may be designated as non-editable to enhance data integrity and database security.

An optional comment field allows the user to make electronic notes about each tag monitored. An alpha-numeric keypad makes data entry a snap.

Key Features for the DataManager

- Custom field labels for more clearly identified route information
- Definable screen layouts optimize user efficiency
- Pick lists lead to consistent data entry and minimize chance of data entry errors
- One button selections to access most commonly used functions
- New sample probe provides 360 degree visual indicator of concentration level
- Cable management system eliminates snagging sample line and electronic cable
- Existing TVA1000 units may be upgraded
- Enhanced filtering system removes dirt and water more efficiently.



Analyzer bag protects TVA1000 and may be used with standard shoulder strap or optional framed backpack

ThermoConnect Software

ThermoConnect enables users of the TVA1000B to transfer, display, analyze, and configure data from the instrument using a computer. ThermoConnect is Windows® based and facilitates the importing of data into other Windows® based applications making it easier to retrieve logged data.

Added capability to maximize the TVA DataManager's features

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Windows® is a registered trademark of Microsoft Corporation.



Complete DataManager System

Applications

Fugitive Emissions Monitoring

The unique dual detector FID/PID design can handle a wide range of compound vapors present at processing plants. The TVA1000B permits monitoring at lower ppm levels.

Emergency Response

For reliable measurements of hazardous spills or emissions, the TVA1000B responds quickly in an emergency. The ability to quickly detect the presence of "hot spots" is key to locating the source of the hazard.

Hazardous Waste Site Evaluation

The TVA1000B allows quick and easy identification of the hazard location and quantifies the level of contamination.

Underground Storage Tanks

The TVA1000B is a primary tool for determining if a UST is leaking and the extent of the contamination.

Industrial Hygiene

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Natural Gas Leak Detection

The TVA1000B enables quick and easy detection of natural gas leaks.

The Thermo Scientific **TVA1000B** is a benchmark for experience and reliability in Fugitive Emissions Monitoring

Thermo Scientific TVA1000B Specifications

Safety certifications	FM (Class 1, Div. 1, Groups A,B,C&D Hazardous Location, Temp. Class T4)
Datalogging	Onboard
Readout	Bar graph & 4- digit LCD
Dynamic Range	0.5-2,000 ppm (PID) isobutylene; 0.5-50,000 ppm (FID) methane
Linear Range	0.5-500 ppm (PID) isobutylene; 0.5-10,000 ppm (FID) methane
Response Time	3.5 seconds
Minimum Detectable Limit	100 ppb benzene (PID); 300 ppb hexane (FID) (laboratory conditions)
Alarms	Low, high, STEL
Sample Flow Rate	1,000 cc/min nominal
Power	Rechargeable NiCd Battery
Logging Capacity	900-18,000 points mode specific
Temperature Range	0-40°C (32°F - 104°F)
Fuel	None required (PID); 99.995% hydrogen (FID)
Portable Operation Time	8 hours (with reference operating conditions)
Approximate Mass	5.8 kg (13 pounds)
Nominal Dimensions	13.5 x 10.3 x 3.2 inches (343 x 262 x 81 mm)
Analog Output	0-2V dc (non-calibrated)
Repeatability	+/- 1% (PID); +/- 2% (FID)
Autoranging	Yes
Diagnostics	Yes
Other Available Options:	
Carrying Case	P/N CR012XL
Charcoal Filter	P/N 510095-1
FID Calibration Kit	P/N CR009UY
PID/FID Calibration Kit	P/N CR012UH

Thermo Scientific products represent a broad range of high-end analytical instruments, chemistry and consumable supplies, laboratory equipment, software and services that enable integrated laboratory workflow solutions. Thermo Scientific is the new name for a trusted brand – Thermo Electron – that the world's most renowned researchers, clinicians and scientists already count on to solve their analytical challenges. The brand is strengthened by the additions equipment, consumables and reagents acquired from Fisher Scientific.



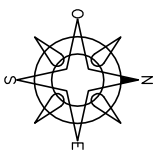
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LANDFILL TECHNOLOGIES OF ARECIBO, LLC

APPENDIX B

Sampling Points Locations from Arecibo Municipal Landfill



AUTORIDAD DE TIERRAS DE PUERTO RICO
FINCA "GARROCHALES"

PROPERTY LIMIT

AUTORIDAD DE TIERRAS DE PUERTO RICO
FINCA "GARROCHALES"

WASTE LIMIT

FLARE

SR. JOSE A. DELGADO

SUCN. RIVERA

SUCN. RAMOS

SR. ANTONIO LOPEZ CAGERES

LEGEND

SAMPLING PATH

SAMPLING POINT

NOTES:
1. SEW PATH SHOWN IS FOR FINAL GRADES. SEW CONDUCTED WHILE THE LANDFILL IS AT INTERIM GRADES MAY VARY FROM THE PATH SHOWN. RECORDS OF THE PATH FOLLOWED WILL BE MAINTAINED BY THE FACILITY.
2. SEW PATH WILL BE SPACED 30 M APART IN ACCORDANCE WITH NSPS RULES.

REVISION			
DATE	BY	#	

ARECIBO MUNICIPAL SOLID WASTE LANDFILL
ARECIBO, P.R



LANDFILL TECHNOLOGIES
OF ARECIBO, CORP.

SURFACE EMISSIONS MONITORING
SAMPLING PATH

DRAWING
S-100
SCALE:
DATE: 01/2010



LANDFILL TECHNOLOGIES OF ARECIBO, LLC

APPENDIX C

Surface Emission Readings

LANDFILL TECHNOLOGIES OF ARECIBO LLC
SURFACE EMISSION MONITORING – ARECIBO LANDFILL
SEPTEMBER 2019

TAG	DETECTOR	CONCENTRATION	CONCENTRATION UNIT	TYPE
DOWNWIND	FID	0.33	PPM	FE
UPWIND	FID	1.77	PPM	FE
POINT1	FID	0.82	PPM	FE
POINT2	FID	1.2	PPM	FE
POINT3	FID	6.3	PPM	FE
POINT4	FID	0.36	PPM	FE
POINT5	FID	0.63	PPM	FE
POINT6	FID	1.56	PPM	FE
POINT7	FID	1.2	PPM	FE
POINT8	FID	3.94	PPM	FE
POINT9	FID	3.13	PPM	FE
POINT10	FID	2.48	PPM	FE
POINT11	FID	0.65	PPM	FE
POINT12	FID	3.36	PPM	FE
POINT13	FID	1.4	PPM	FE
POINT14	FID	5.22	PPM	FE
POINT15	FID	1.15	PPM	FE
POINT16	FID	9.95	PPM	FE
POINT17	FID	6.64	PPM	FE
POINT18	FID	4.11	PPM	FE
POINT19	FID	19.54	PPM	FE
POINT20	FID	6.52	PPM	FE
POINT21	FID	7.4	PPM	FE
POINT22	FID	7.4	PPM	FE
POINT23	FID	16.87	PPM	FE
POINT24	FID	13.7	PPM	FE
POINT25	FID	1.33	PPM	FE
POINT26	FID	1.41	PPM	FE
POINT27	FID	6.39	PPM	FE
POINT28	FID	6.14	PPM	FE
POINT29	FID	4.73	PPM	FE
POINT30	FID	2.84	PPM	FE
POINT31	FID	1.87	PPM	FE
POINT32	FID	2.71	PPM	FE
POINT33	FID	0.61	PPM	FE
POINT34	FID	0.76	PPM	FE
POINT35	FID	0.8	PPM	FE
POINT36	FID	1.58	PPM	FE
POINT37	FID	0.6	PPM	FE
POINT38	FID	5.83	PPM	FE
POINT39	FID	7.14	PPM	FE
POINT40	FID	1.96	PPM	FE
POINT41	FID	1.19	PPM	FE
POINT42	FID	2.95	PPM	FE

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SURFACE EMISSION MONITORING – ARECIBO LANDFILL
SEPTEMBER 2019

TAG	DETECTOR	CONCENTRATION	CONCENTRATION UNIT	TYPE
POINT43	FID	20.93	PPM	FE
POINT44	FID	6.73	PPM	FE
POINT45	FID	1.66	PPM	FE
POINT46	FID	9.08	PPM	FE
POINT47	FID	9.51	PPM	FE
POINT48	FID	2.99	PPM	FE
POINT49	FID	1.68	PPM	FE
POINT50	FID	4.4	PPM	FE
POINT51	FID	4.12	PPM	FE
POINT52	FID	6.13	PPM	FE
POINT53	FID	2.02	PPM	FE
POINT54	FID	0.31	PPM	FE
POINT55	FID	111.88	PPM	FE
POINT56	FID	9.47	PPM	FE
POINT57	FID	5.37	PPM	FE
POINT58	FID	77.98	PPM	FE
POINT59	FID	294.96	PPM	FE
POINT60	FID	7.60	PPM	FE
POINT61	FID	65.75	PPM	FE
POINT62	FID	24.34	PPM	FE
POINT63	FID	1.78	PPM	FE
POINT64	FID	25.58	PPM	FE
POINT65	FID	12.43	PPM	FE
POINT66	FID	3.54	PPM	FE
POINT67	FID	153.41	PPM	FE
POINT68	FID	117.44	PPM	FE
POINT69	FID	6.89	PPM	FE
POINT70	FID	1.34	PPM	FE
POINT71	FID	236.71	PPM	FE
POINT72	FID	14.37	PPM	FE
POINT73	FID	32.66	PPM	FE
POINT74	FID	25.53	PPM	FE
POINT75	FID	22.11	PPM	FE
POINT76	FID	4.42	PPM	FE
POINT77	FID	6.68	PPM	FE
POINT78	FID	4.64	PPM	FE
POINT79	FID	14.99	PPM	FE
POINT80	FID	4.42	PPM	FE
POINT81	FID	2.99	PPM	FE
POINT82	FID	12.74	PPM	FE
POINT83	FID	7.16	PPM	FE
POINT84	FID	9.37	PPM	FE
POINT85	FID	7.48	PPM	FE
POINT86	FID	5.18	PPM	FE

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TAG	DETECTOR	CONCENTRATION	CONCENTRATION UNIT	TYPE
POINT87	FID	17.5	PPM	FE
POINT88	FID	2.37	PPM	FE
POINT89	FID	10.3	PPM	FE
POINT90	FID	12.05	PPM	FE
POINT91	FID	5.74	PPM	FE
POINT92	FID	19.01	PPM	FE
POINT93	FID	11.86	PPM	FE
POINT94	FID	11.49	PPM	FE
POINT95	FID	9.23	PPM	FE
POINT96	FID	8.65	PPM	FE
POINT97	FID	24.26	PPM	FE
POINT98	FID	4.09	PPM	FE
POINT99	FID	8.33	PPM	FE
POINT100	FID	13.15	PPM	FE
POINT101	FID	28.94	PPM	FE
POINT102	FID	22.21	PPM	FE
POINT103	FID	1.76	PPM	FE
POINT104	FID	7.64	PPM	FE
POINT105	FID	0.41	PPM	FE
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POINT123	FID	52.83	PPM	FE
POINT124	FID	58.86	PPM	FE
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Minimum Detectable Limit	100 ppb benzene (PID); 300 ppb hexane (FID) (laboratory conditions)
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Sample Flow Rate	1,000 cc/min nominal
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Logging Capacity	900-18,000 points mode specific
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Analog Output	0-2V dc (non-calibrated)
Repeatability	+/- 1% (PID); +/- 2% (FID)
Autoranging	Yes
Diagnostics	Yes
Other Available Options:	
Carrying Case	P/N CR012XL
Charcoal Filter	P/N 510095-1
FID Calibration Kit	P/N CR009UY
PID/FID Calibration Kit	P/N CR012UH

Thermo Scientific products represent a broad range of high-end analytical instruments, chemistry and consumable supplies, laboratory equipment, software and services that enable integrated laboratory workflow solutions. Thermo Scientific is the new name for a trusted brand – Thermo Electron – that the world's most renowned researchers, clinicians and scientists already count on to solve their analytical challenges. The brand is strengthened by the additions equipment, consumables and reagents acquired from Fisher Scientific.



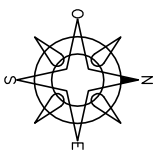
Lit_TVAEID_0707



LANDFILL TECHNOLOGIES OF ARECIBO, LLC

APPENDIX B

Sampling Points Locations from Arecibo Municipal Landfill

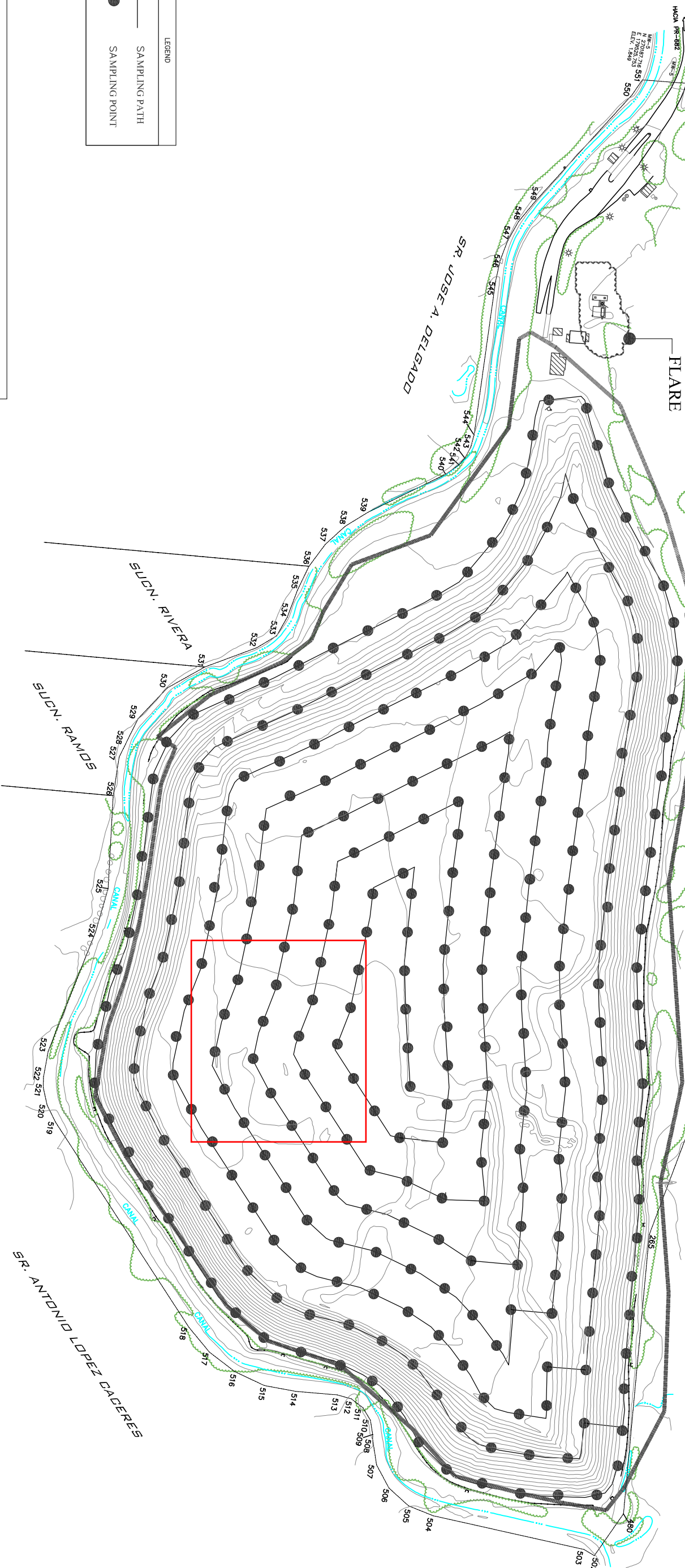


AUTORIDAD DE TIERRAS DE PUERTO RICO
FINCA "GARROCHALES"

PROPERTY LIMIT

WASTE LIMIT

AUTORIDAD DE TIERRAS DE PUERTO RICO
FINCA "GARROCHALES"



LEGEND

SAMPLING PATH

SAMPLING POINT

NOTES:
1. SEW PATH SHOWN IS FOR FINAL GRADES. SEW CONDUCTED WHILE THE LANDFILL IS AT INTERIM GRADES MAY VARY FROM THE PATH SHOWN. RECORDS OF THE PATH FOLLOWED WILL BE MAINTAINED BY THE FACILITY.
2. SEW PATH WILL BE SPACED 30 M APART IN ACCORDANCE WITH NSPS RULES.

REVISION			
	DATE	BY	#

ARECIBO MUNICIPAL SOLID WASTE LANDFILL
ARECIBO, P.R



LANDFILL TECHNOLOGIES
OF ARECIBO, CORP.

SURFACE EMISSIONS MONITORING
SAMPLING PATH

DRAWING
S-100
SCALE:
DATE: 01/2010



LANDFILL TECHNOLOGIES OF ARECIBO, LLC

APPENDIX C

Surface Emission Readings

LANDFILL TECHNOLOGIES OF ARECIBO LLC
SURFACE EMISSION MONITORING – ARECIBO LANDFILL
DECEMBER 2019

TAG	DETECTOR	CONCENTRATION	CONCENTRATION UNIT	TYPE
DOWNWIND	FID	1.5	PPM	FE
UPWIND	FID	2.8	PPM	FE
POINT1	FID	1.29	PPM	FE
POINT2	FID	1.99	PPM	FE
POINT3	FID	10.54	PPM	FE
POINT4	FID	0.57	PPM	FE
POINT5	FID	0.93	PPM	FE
POINT6	FID	2.55	PPM	FE
POINT7	FID	1.89	PPM	FE
POINT8	FID	6.4	PPM	FE
POINT9	FID	5.03	PPM	FE
POINT10	FID	3.98	PPM	FE
POINT11	FID	1.02	PPM	FE
POINT12	FID	5.12	PPM	FE
POINT13	FID	2.08	PPM	FE
POINT14	FID	8.45	PPM	FE
POINT15	FID	1.72	PPM	FE
POINT16	FID	13.88	PPM	FE
POINT17	FID	10.05	PPM	FE
POINT18	FID	6.62	PPM	FE
POINT19	FID	32.68	PPM	FE
POINT20	FID	10.26	PPM	FE
POINT21	FID	10.96	PPM	FE
POINT22	FID	12.11	PPM	FE
POINT23	FID	26.69	PPM	FE
POINT24	FID	22.23	PPM	FE
POINT25	FID	2.13	PPM	FE
POINT26	FID	2.26	PPM	FE
POINT27	FID	8.31	PPM	FE
POINT28	FID	7.5	PPM	FE
POINT29	FID	5.36	PPM	FE
POINT30	FID	3.87	PPM	FE
POINT31	FID	3.01	PPM	FE
POINT32	FID	2.73	PPM	FE
POINT33	FID	0.62	PPM	FE
POINT34	FID	0.82	PPM	FE
POINT35	FID	0.88	PPM	FE
POINT36	FID	4.01	PPM	FE
POINT37	FID	1.82	PPM	FE
POINT38	FID	10.47	PPM	FE
POINT39	FID	7.13	PPM	FE
POINT40	FID	1.95	PPM	FE
POINT41	FID	1.18	PPM	FE
POINT42	FID	111	PPM	FE

LANDFILL TECHNOLOGIES OF ARECIBO LLC
SURFACE EMISSION MONITORING – ARECIBO LANDFILL
DECEMBER 2019

TAG	DETECTOR	CONCENTRATION	CONCENTRATION UNIT	TYPE
POINT43	FID	20.92	PPM	FE
POINT44	FID	6.72	PPM	FE
POINT45	FID	1.65	PPM	FE
POINT46	FID	9.07	PPM	FE
POINT47	FID	9.5	PPM	FE
POINT48	FID	2.98	PPM	FE
POINT49	FID	2.04	PPM	FE
POINT50	FID	5.24	PPM	FE
POINT51	FID	5.15	PPM	FE
POINT52	FID	6.63	PPM	FE
POINT53	FID	2.13	PPM	FE
POINT54	FID	0.41	PPM	FE
POINT55	FID	194.82	PPM	FE
POINT56	FID	18.8	PPM	FE
POINT57	FID	10.85	PPM	FE
POINT58	FID	113.53	PPM	FE
POINT59	FID	427.94	PPM	FE
POINT60	FID	33.4	PPM	FE
POINT61	FID	140.34	PPM	FE
POINT62	FID	44.31	PPM	FE
POINT63	FID	3.13	PPM	FE
POINT64	FID	46	PPM	FE
POINT65	FID	22.16	PPM	FE
POINT66	FID	6.48	PPM	FE
POINT67	FID	137.69	PPM	FE
POINT68	FID	155.15	PPM	FE
POINT69	FID	10.82	PPM	FE
POINT70	FID	2.22	PPM	FE
POINT71	FID	331.97	PPM	FE
POINT72	FID	22.62	PPM	FE
POINT73	FID	48.42	PPM	FE
POINT74	FID	41.78	PPM	FE
POINT75	FID	34.98	PPM	FE
POINT76	FID	7.17	PPM	FE
POINT77	FID	10.76	PPM	FE
POINT78	FID	6.87	PPM	FE
POINT79	FID	22.54	PPM	FE
POINT80	FID	6.79	PPM	FE
POINT81	FID	6.18	PPM	FE
POINT82	FID	25.96	PPM	FE
POINT83	FID	12.78	PPM	FE
POINT84	FID	17.18	PPM	FE
POINT85	FID	12.99	PPM	FE
POINT86	FID	9.27	PPM	FE

LANDFILL TECHNOLOGIES OF ARECIBO LLC
SURFACE EMISSION MONITORING – ARECIBO LANDFILL
DECEMBER 2019

TAG	DETECTOR	CONCENTRATION	CONCENTRATION UNIT	TYPE
POINT87	FID	31.47	PPM	FE
POINT88	FID	4.23	PPM	FE
POINT89	FID	18.88	PPM	FE
POINT90	FID	20.92	PPM	FE
POINT91	FID	8.5	PPM	FE
POINT92	FID	28.59	PPM	FE
POINT93	FID	18.2	PPM	FE
POINT94	FID	19.71	PPM	FE
POINT95	FID	17.41	PPM	FE
POINT96	FID	14.55	PPM	FE
POINT97	FID	79.29	PPM	FE
POINT98	FID	6.55	PPM	FE
POINT99	FID	14.82	PPM	FE
POINT100	FID	19.98	PPM	FE
POINT101	FID	103.91	PPM	FE
POINT102	FID	150.42	PPM	FE
POINT103	FID	4.18	PPM	FE
POINT104	FID	13.44	PPM	FE
POINT105	FID	0.76	PPM	FE
POINT106	FID	9.79	PPM	FE
POINT107	FID	4.21	PPM	FE
POINT108	FID	29.38	PPM	FE
POINT109	FID	20.46	PPM	FE
POINT110	FID	7.97	PPM	FE
POINT111	FID	3.57	PPM	FE
POINT112	FID	9.59	PPM	FE
POINT113	FID	15.54	PPM	FE
POINT114	FID	10.08	PPM	FE
POINT115	FID	6.25	PPM	FE
POINT116	FID	6.39	PPM	FE
POINT117	FID	2.32	PPM	FE
POINT118	FID	13.97	PPM	FE
POINT119	FID	17.09	PPM	FE
POINT120	FID	18.85	PPM	FE
POINT121	FID	17.16	PPM	FE
POINT122	FID	29.11	PPM	FE
POINT123	FID	60.12	PPM	FE
POINT124	FID	77.92	PPM	FE
POINT125	FID	53	PPM	FE
POINT126	FID	24.95	PPM	FE
POINT127	FID	27.59	PPM	FE
POINT128	FID	35.63	PPM	FE
POINT129	FID	25.83	PPM	FE
POINT130	FID	23.28	PPM	FE

LANDFILL TECHNOLOGIES OF ARECIBO LLC
SURFACE EMISSION MONITORING – ARECIBO LANDFILL
DECEMBER 2019

TAG	DETECTOR	CONCENTRATION	CONCENTRATION UNIT	TYPE
POINT131	FID	25.31	PPM	FE
POINT132	FID	23.3	PPM	FE